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Prostate cancer awareness and screening among male public servants in Anambra State, Nigeria

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Abstract

Introduction and objectives: Early detection of prostate cancer (PCa) with prostate-specific antigen (PSA) has led to a stage migration with increased detection of early stage, potentially curable disease. Knowledge about PSA screening for PCa among men will lead to increased detection of potentially curable disease.

Subjects and methods: Male public servants in Anambra State, Southeast, Nigeria, were invited to complete a self-administered questionnaire on their knowledge of PCa and PSA screening. Results were analyzed using Microsoft Excel® 2007.

Results: A total of 652 men completed the questionnaire. Their mean age was 45.1 years (range 20–69). Overall, 74.1% of the respondents were aware of the existence of PCa, while 76.1% were able to identify one or more symptoms of the disease. Difficulty in passing urine was identified as the most common presenting symptom by 45.3% of the respondents, while 87% were able to identify risk factors for PCa. Whereas 56.7% were aware of PSA screening and 92% expressed interest in having PCa screening if recommended only 6.4% had undergone PSA screening in the preceding year.

Conclusion: Despite a high awareness of PCa among public servants in Anambra State, Nigeria, a very small proportion of these men had undergone PSA screening. To achieve a stage migration in PCa detection in Nigeria, early detection using PSA screening should be actively driven by health personnel using the media.

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Introduction

Prostate cancer (PCa) is the second commonest cause of cancer-related death in men worldwide [1]. Logically, it would be expected that early detection should lead to a reduction in cancer-related mortality as seen in other genitourinary tumors such as testicular cancer, but this is not the case with PCa [2].

In Nigeria, like other developing countries in sub-Saharan Africa, there is no national cancer mortality database or active screening

Table 1 Knowledge of PCa and PSA screening.

Knowledge	Aware/positive response		Not aware/negative response	
	Number	Percentage	Number	Percentage
Aware of PCa	483	74.1	169	25.9
Positive family history	125	19.2	527	80.8
Possible symptoms	496	76.1	156	23.9
Possible risk factors	567	87	85	13
Aware of PSA screening	370	56.8	282	43.2
Screened during past year	42	6.4	610	93.6
Willing to be screened	600	92	52	8

program [3], which makes it difficult to assess the true burden of PCa. However, studies in Nigeria emphasize the increasing prevalence of the disease [4,5]. Most cases are diagnosed late, patients are less likely to receive curative therapy, and the commonest mode of therapy is androgen deprivation [4,6,7].

The role of PCa screening with prostate-specific antigen (PSA) is controversial, because early detection has not been shown clearly to decrease PCa mortality [8]. Nonetheless, PSA screening for PCa has been widely used since its approval by the United States Food and Drug Administration in 1994 [9].

The aim of this study was to assess the knowledge of PCa and PSA screening among male public servants in Anambra State, Southeast Nigeria.

Subjects and methods

Male public servants in Anambra State were enlisted into the study after providing informed consent. The study consisted of a self-administered questionnaire testing 7 key areas of PCa knowledge and PSA screening:

1. Awareness of PCa
2. Presenting symptoms
3. Risk factors
4. Awareness of screening with PSA
5. Performance of screening with PSA
6. Sources of information on PCa and PSA screening
7. Willingness to undergo PSA test if recommended

Each question was scored with one point for a correct answer, with a total of 7 points as the maximum score. Results were analyzed using Microsoft Excel® 2007.

Results

A total of 652 men completed the questionnaire. The mean age of the respondents was 45.1 years (range 20–69). Most of the men (38.8%) were in the age group 40–49 years (Fig. 1). The overall knowledge score based on the 7-part questionnaire was 4.11 (58.7%). The results of the questionnaire are shown in Table 1. Difficulty in passing urine was identified as the most common presenting symptom by 45.3% of respondents. Other symptoms included back pain, hematuria and pyuria, identified by 12%, 12.5% and 6.2%, respectively, whereas 23.9% did not know any symptoms

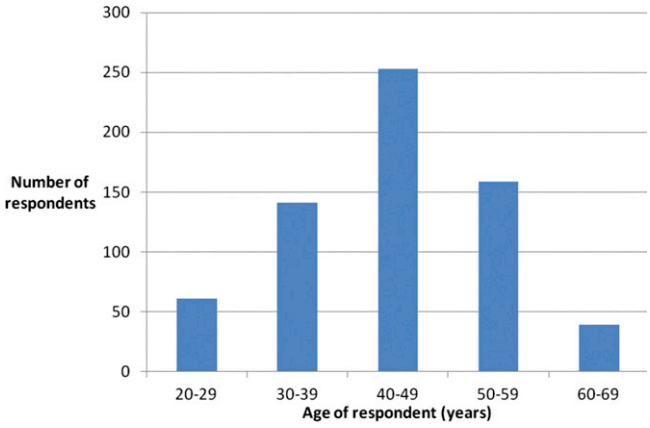

Figure 1 Age distribution of respondents.

associated with PCa. Risk factors for PCa identified by the respondents were age, presence of testes, diet and family history – 28.2%, 24.9%, 12.6% and 21.2%, respectively. The sources of information on PCa and PSA screening identified by the respondents are shown in Table 2.

Discussion

PCa is the most commonly diagnosed malignancy among men, and the peak incidence is in the sixth to seventh decades of life [1,4,6]. The disease has a profound emotional and functional effect on patients and their caregivers and imposes a large financial burden.

PCa incidence in Nigeria (127/100.000) is comparable to that in African American men, with an annual death rate of about 20.000 [5]. With the increasing life expectancy in Nigeria, more men will be diagnosed with PCa [10].

Data on cancer morbidity and mortality in Nigeria are unavailable due to the absence of a national cancer registry. However, a review of

Table 2 Sources of information on PCa and PSA screening.

Source of information	Response rate	
	Number	Percentage
Friend	128	19.6
Doctor/health worker	240	36.8
Books/newspapers/magazines	276	42.3
Television/radio	279	42.8

cancer morbidity in adults from Ibadan, Southwest Nigeria, showed that PCa was the most common cancer in males [11].

In this study, there was a high level of knowledge (74.1%) of PCa among male public servants in Anambra State, Nigeria. This may be attributed to higher education levels and greater access to information among these men. There are conflicting reports concerning public awareness of PCa in different parts of Nigeria [12,13]. The reported differences can be explained by differences in the population groups studied.

This study cohort of well educated public servants in full-time employment represents a small fraction of the population, who are largely uneducated [14]. One may reasonably expect a better appreciation of health matters in this group of men than in the general population. Due to its selection bias, this study may not reflect general population trends and attitudes. This indicates the need for studying the general population, although the study subjects may not be able to complete the questionnaire without assistance.

Whereas 56.8% of the respondents had knowledge of PSA screening for PCa, only 6.4% had undergone PSA screening in the preceding year, although 90% were willing to undergo PSA testing if recommended. This may be related to the credibility of health promotion campaigns or the fear of being diagnosed with cancer. In Nigeria, there is no national policy on PCa screening, and most public health information is not directed at early detection and treatment. The low screening rate in this study population will invariably translate into a lower rate of early detection of PCa.

PSA screening definitely leads to stage migration with increased diagnosis of early stage, potentially curable PCa [15]. However, the population benefit of PSA screening for PCa remains unproven [16], although multinational studies have reported decreasing PCa mortality rates in countries with more widespread screening policies [16].

Conclusion

There is a high awareness of PCa and PSA screening among male public servants in Anambra State, Nigeria. To achieve stage migration in PCa detection in Nigeria, early detection using PSA screening should be actively driven by health personnel using the media, and should be backed with an effective national health policy on PCa screening.

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